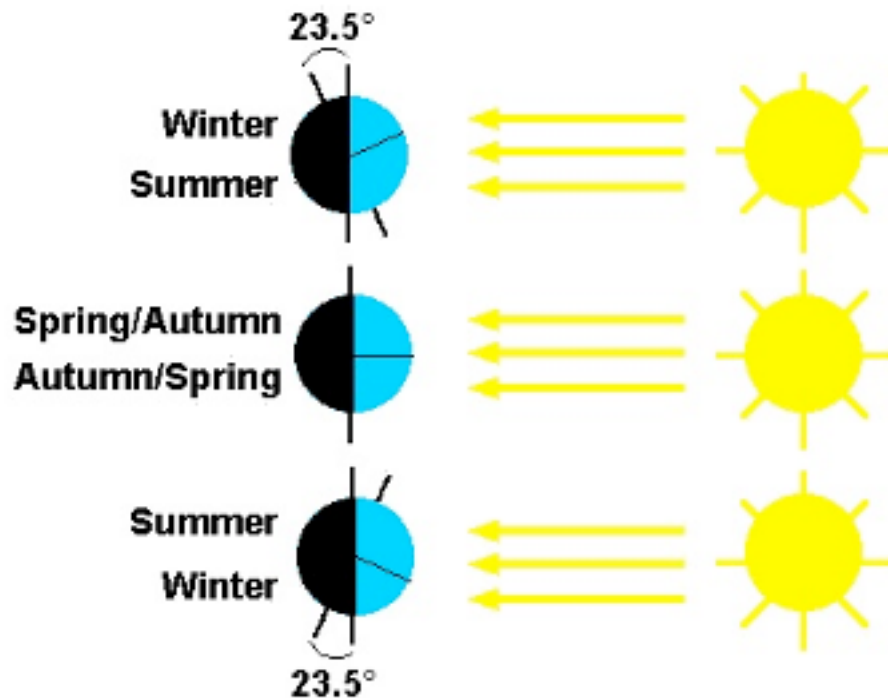
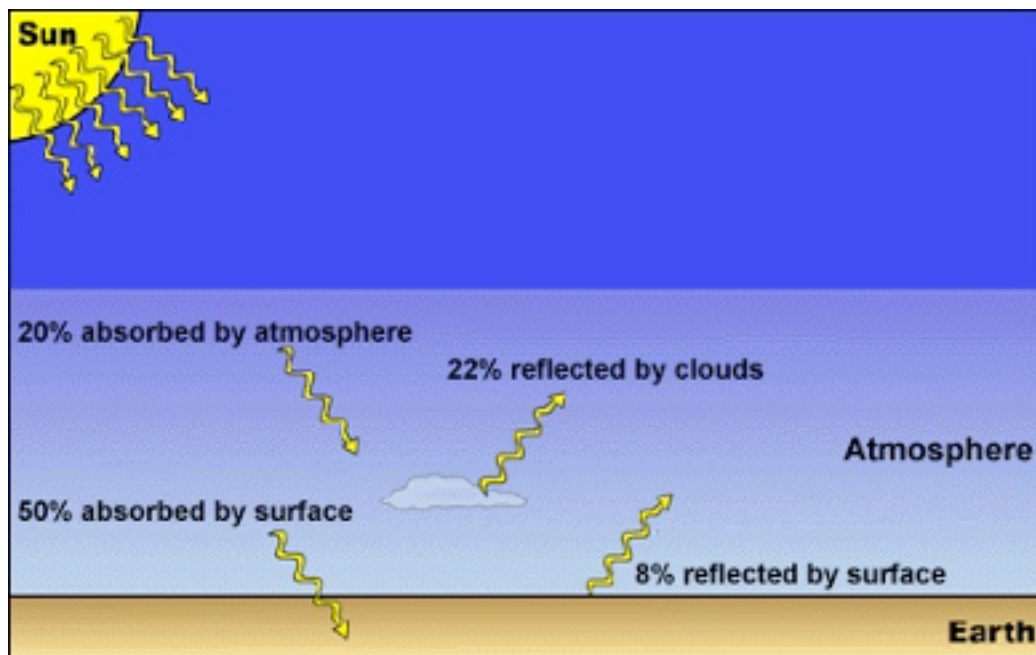


Solar Radiation

Solar radiation is the main energy source for atmospheric heating. The atmosphere heats up when water vapor and other greenhouse gases in the troposphere absorb infrared radiation either directly from the sun or re-radiated from the earth's surface. Heat from the sun also evaporates ocean water and transfers heat to the atmosphere. The earth's surface temperature varies with latitude. This is due to uneven heating of the earth's surface. The region near the equator receives direct sunlight, whereas sunlight strikes the higher latitudes at an angle and is scattered and spread out over a larger area. The angle at which sunlight strikes the higher latitudes varies during the year due to the fact that the earth's equatorial plane is tilted 23.5° relative to its orbital plane around the sun. This variation is responsible for the different seasons experienced by the non-equatorial latitudes.





SOLAR RADIATION PATHWAYS